Please replace the paragraph beginning at line 18 of page 1 with the following rewritten paragraph:

B1

Conventional flying optical heads, for example as disclosed in the above-mentioned patents, use specially designed "air-incident disks" that relocate the optically sensitive information-carrying layer from a position below a thick, transparent, protective substrate to a position very near the lowest facet of the lens facing the disk (See Fig. 2). A hard coating is usually used as the top-most layer, between the information-carrying layer and the lens, to improve head-disk reliability. Appropriately chosen lubrication film and adhesion layers are also sometimes used.

Please replace the paragraph beginning at line 16 of page 3 with the following rewritten paragraph:

B2

According to another embodiment of the invention, there is an optical disk designed to be used with flying optical heads, comprising: a protective overcoat layer; a first dielectric layer; a phase change recording layer where the reflectivity difference between the amorphous and crystalline states are utilized for mark formation; a second dielectric layer; and a metal reflector layer; wherein the layers are supported on a substrate for mechanical support; and when the phase change recording layer experiences a temperature sufficient to cause transformation to an amorphous state, a surface of the disk on which optical energy impinges experiences a temperature such that no significant evaporation of the protective overcoat layer and no significant evaporation of adsorbed molecules from ambient atmosphere occur. In this embodiment, the structure keeps the surface temperature less than the desorption temperature of water during read and write operations. The protective overcoat layer can be designed to have low thermal conductivity to further isolate the heat generated by the making and erasing operations by an optical beam or can be designed to have high thermal conductivity to quickly dissipate the transmitted heat over a wide area. Alternatively, the structure keeps the surface temperature less than the desorption temperature of common hydrocarbon species found in ambient air during read and write operations. The protective overcoat layer may comprise a solid-phase overcoat and a lubricant. Alternatively, the protective overcoat layer may itself be a

B2 cont'd

lubricant. A third dielectric layer can be added between the metal reflector layer and the substrate. A thermal isolation layer having a thermal conductivity less than that of the first dielectric layer can be added between the protective overcoat and the first dielectric layer. In variations of this embodiment, the separation between the recording layer and the overcoat layer can be in the range of 100-500 nm. The total optical thickness between the recording layer and the surface of the disk can be greater than the optical thickness required to achieve the first maximum in reflectivity difference between the amorphous and the crystalline states of the phase change recording material.

Please replace the paragraph beginning at line 10 of page 6 with the following rewritten paragraph:

B3

In air-incident optical recording, the active layer is brought as close to the surface of the disk facing the lens as possible, with only a few, thin intervening layers to improve the head-disk interface and to satisfy optical requirements. Figs. 2A and 2B schematically represent conventional air-incident disk structures 200 used with flying optical heads 201, 202. Both single-lens element flying heads 202 and SIL-type doublet supported by a slider body 201 are shown. Since the combined thickness of the overcoat 203 and the upper dielectric 204 is normally less than 1 micron, thermal events at the active layer 205 can strongly affect the surface 206 of the overcoat 203 and the lens 207, 208. This is especially true when SIL-type doublet is used, as the separation between the bottom facet 209 of the SIL lens 207 and the top 206 of the overcoat 203 is much less than 1 micron. Furthermore, a lubrication layer (not shown) is often used to improve head-disk reliability. Elevation of the surface temperature can have undesirable effects on the lubrication properties and causes evaporation of some lubricant. Also, any airborne contaminant including moisture present in the ambient atmosphere, which may have been adsorbed into the surface of the disk, may be evaporated. These effects are described in further detail, now.